Missouri Department of Transportation
Specifications for 41' Light Truck Mounted One Bucket
Articulating and Telescopic Aerial Unit.

Aerial device has an end mounted one-man bucket with a minimum of ground to bottom of bucket height of minimum 35' and working height of 40'.

Cab/Chassis

Current model year Cab and Chassis with minimum 17,500 GVWR, V10 gas engine, automatic transmission, air conditioning, speed control and tilt, spare tire and wheel, rubber floor mats, 4-wheel ABS, LH and RH manual trailer-type mirrors, factory-installed cab steps, and a heavy-duty Type V with a Type III adapter trailer hitch. Special equipment to include a weight distributing hitch platform and wiring harness for a 7-pin commercial truck connector.

Bucket

Shall be fire resistant closed one-piece fiberglass type bucket with approximate measurements of 24" X 30" X 42" with an inside and outside step for easy access. The bucket capacity shall be a minimum of 300 lbs. and include body harness and lanyard. The anchor for lanyard must be attached to inner boom.

Single Stick Platform Control

The singlestick control consists of a multi-jointed handle, which operates the control valve. A safety trigger located on the underside of the single stick handle will not allow boom movement until it is depressed. The control valve is full pressure and full flow. The operator can feather between the three control movements to provide multi-function boom action. An emergency stop is provided.

Hydraulic Bucket Leveling and Tool Outlets

Platform leveling is controlled by a master and slave cylinder arrangement. The bucket leveling system can be activated from the upper controls to adjust bucket-leveling, tilt of the bucket for cleaning, or to ease the removal of an injured operator. Hydraulic tool outlet shall be located at the bucket and a hydraulic ground tool outlet shall be at located the ground level near the rear of the truck on the curbside.

Boom Configuration

The major components of the aerial device shall consist of a steel outer boom, a telescopic fiberglass inner boom, and a steel articulating lower boom. A boom-support cradle and a ratchet type boom tie-down strap to be included.

Rotation

Rotation of aerial device to be continuous unlimited. An external hex drive is to be provided for manual rotation in case of hydraulic failure.

Pedestal/ Reservoir
The hydraulic reservoir to be built integral to the pedestal, the reservoir has an anti-splash baffle and easy to read fluid level gages. The oil capacity of the reservoir shall be large enough to support full operation of aerial unit.

Hydraulic System
An open or closed center hydraulic system shall be acceptable. Fluid level gages are to be furnished for checking fluid level. This system can be driven by and optional engine belt drive system or by a transmission power-take-off (PO) pump.

Paint
For the aerial device shall be standard manufacturers white.

Engine Start/Stop and Master Control
Controls for starting and stopping the truck engine shall be located in the bucket. An emergency letdown system controlled from the bucket shall be included.

Electrical Insulation
The aerial device shall be tested and certified for electrical work at 46 KV and below in accordance with ANSI A92.2-1990 requirements.

Torsion Bar
Provide front and rear torsion bars to add stability to the vehicle. All torsion bars must include rubber bushings at all points of movement and do not require lubrication. Ballast may be required with the use of torsion bars.

Bucket Cover
Provide a vinyl cover for the bucket.

The Missouri Department of Transportation reserves the right to waive technicalities and to reject any or all bids and no bid is final until formally accepted by the Commission.